IN THE CLAIMS

Claims 1-16 (Canceled).

17. (Original) A method of supporting an actuator element in a fuel injector having a body with an inlet port, an outlet port and a fuel passageway extending from the inlet port to the outlet port, a metering element disposed proximate the outlet port, an actuation element having a proximal end and a distal end, the proximal end being in operative contact with the metering element, a compensator having a plunger disposed in a sleeve with a clearance between the plunger and the sleeve, the compensator containing magnetically-active fluid disposed for movement within the compensator, and an electromagnetic coil, the method comprising:

changing the magnetically-active fluid in the compensator from a first state to a second state when a magnetic flux is generated; and

maintaining one end of the actuation element constant with respect to the compensator when the magnetic flux is generated.

18. (Original) The method according to claim 17, wherein the changing comprises changing a viscosity of the magnetically-active fluid from a first viscosity to a second viscosity greater than the first viscosity.

19. (Currently amended) A ~~The~~ method ~~according to claim 17, wherein the changing comprises~~ of supporting an actuator element in a fuel injector having a body with an inlet port, an outlet port and a fuel passageway extending from the inlet port to the outlet port, a metering element disposed proximate the outlet port, an actuation element having a proximal end and a distal end, the proximal end being in operative contact with the metering element, a compensator having a plunger disposed in a sleeve with a clearance between the plunger and the sleeve, the compensator containing magnetically-active fluid disposed for movement within the compensator, and an electromagnetic coil, the method comprising:

changing the magnetically-active fluid in the compensator from a first state to a second state when a magnetic flux is generated, and changing from [[a]] the second state to [[a]] the first state such that distortions of the fuel injector are compensated by the magnetically-active fluid in the first state; and

maintaining one end of the actuation element constant with respect to the compensator when the magnetic flux is generated.

20. (Original) The method according to claim 17, wherein the changing comprises reducing movement of the magnetically-active fluid in the compensator when the actuation element is actuated.

21. (Original) The method according to claim 17, wherein the maintaining further comprises providing at least one of a magnetostrictive member and piezoelectric stack so as to actuate the metering element.

22. (Original) The method according to claim 17, wherein the changing comprises energizing the electromagnetic coil so as to generate the magnetic flux.

23. (Currently amended) A ~~The~~ method ~~according to claim 17, further~~ of supporting an actuator element in a fuel injector having a body with an inlet port, an outlet port and a fuel passageway extending from the inlet port to the outlet port, a metering element disposed proximate the outlet port, an actuation element having a proximal end and a distal end, the proximal end being in operative contact with the metering element, a compensator having a plunger disposed in a sleeve with a clearance between the plunger and the sleeve, the compensator containing magnetically-active fluid disposed for movement within the compensator, and an electromagnetic coil, the method comprising:

changing the magnetically-active fluid in the compensator from a first state to a second state when a magnetic flux is generated;

maintaining one end of the actuation element constant with respect to the compensator when the magnetic flux is generated;

prestressing the magnetostrictive member with a predetermined prestress force; and

controlling flow of the magnetically-active fluid disposed in the compensator.